

UNIQUE IDENTIFICATION (UID)

24 April 2003 – Implementation Working Group Meeting Notes

Attendees:

Linda Barnwell, Lorrey Bentzel, Patrick Curry, Chris Denham, Carl Gardner, Mitch Kaarlela, David Johnson, Howard Mason, Ben Morgan, Vince Pontani, Greg Redick, Roger Saucedo, Chris Sautter, LeAntha Sumpter, Tom Vickers, Steve Winship, King Yee

Standards Team Brief (draft distributed separately)

- Mitch: could always mandate method 2 (simplification). Greg: wanted to accommodate all businesses; not demand change. Patrick: distinction between 'mark' and 'label'; haven't gone into enough; need to pass to IWG.
- Marking grid: UID constructed through concatenation *in order*. Current part number may also be there, but in a different area.
- SAP has a limit of 18 char in a data field; UID likely to be much longer.
- Roger: are we going to override historical serial #? Greg: No.
- Carl: mfr does not create UID; but, EID must guarantee uniqueness. Steve/Patrick: agree on need for a master reference database for UIDs. Static data stays on the plate...
 - Roger: sees a problem with this.
 - EID is responsible for guaranteeing uniqueness.
 - Semantics (data qualifiers) on part will define data elements, and tell AIT whether method 1 or 2.
 - All high-cap AITs shall conform to ISO/IEC 15434 syntax.
 - Patrick: central registry of EIDs, UIDs, ...?
 - Once created in database:
 - § UID exists separately
 - § shall not be parsed
 - § shall be the primary pointer/key for the database
- Karl: why second rule? Patrick: w/o delimiters, don't know where to put the line, and don't know if the #'s have not changed. David: the UID is a virtual 'thing'; don't want it to change.
- David: how do the AIS people feel? Karl: think they're ok. Greg: should get them together soon. LeAntha: WAW people will be here to talk this afternoon. Need to make some minor changes to the DFAR definitions (what goes in the data fields on the form), and can capture digital info. Contracts folks have no digitalization; digital data comes from the contractors. We will create through acceptance & inspection; will pass to the AIS folks (Gary Jones). WAW feeds into DEBEX (?); AISs can get that.
- Chris S.: then, can we use for legacy stuff? LeAntha: yes, but, walk before run.
- Stacy: WAW to DEBEX to log; reverse? LeAntha: No, not yet.
- What about the gap between July policy and ISO action?
 - Try to accelerate.

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- Three TAGs at the same time.
 - MH 10 committee has asked for a study period prior to TAG action.
- LeAntha: Karl, is Maurice on board? Greg: Dan & Mark on board. Their concern: SC 31 resistance to adding TELs. If US TAG is on board, SC 31 may/may not give problems. US TAG is heavy with retailers.
- Tom: Concerned with what AIS is doing to consolidate legacy databases may lose some of the data that we need. LeAntha: SysEng group: want to capitalize on the idea of a registry to create UIDs for existing parts. Gary is onboard with the concept of UID; the cornerstone of logistics system re-build. Greg: policy will go out soon. Services have been taking notice; might be trying to keep the data that we need. Patrick: system needs to join the enterprise: need to have the data, or some sort of rule to resolve issues.
- What about Implementation? David: second slide (purpose of UID) is really the starting point of implementation... Greg: agree. Yesterday's discussion all over the place.
- Will AIS have to do the parsing/translation? AITs can do the job if available. LeAntha: can use paper documentation to create UID rather than scanning the part. Not sure if we have the infrastructure to do a comparison of the paper and the part. Patrick: too many problems in practice. Have we got either no physical item for the UID, or multiple false UIDs for the same physical item. Greg: sounds dangerous. AIT demo indicates that vendors can provide scanners with translation capability. Current DoD infrastructure is minimal; this will give guidance. Howard: collaborative solution includes translation between formats. Karl: need MRC on the item. Mitch: if we want cost accountability, could I put barcode element on DD-250 for the cost accounting people. LeAntha: if I can get the info in the beginning, we're getting started. Patrick: issue is how to create the record. Need to take existing legacy info, clean up to try to create UIDs, verify against the real world, then go forward.
- What's our job? Greg: second time meeting; purpose is actually for the group as a whole; we've got a list of deliverables to work on. We do have some work to do...

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Implementation Group Discussion (Large Group)

- Pledge of Support being promoted by Mr. Michael Wynne, in which the foundation is the strategic imperative for UID
- Need to “unfold” the imperative to communicate and sell the why, how, value
- Stakeholder communities
 - Within DOD
 - Government Agencies
 - Industry Association (Large companies that might bring influence to Big programs)
 - International Coalition Partners

Note: Reaching out to large companies supporting large programs and international partners would be done in parallel.

Implementation “Alternatives”

- Motivation to get industry on board with UID - No UID , no pay
- If industry begins marking/enabling UID, is DOD ready to accept and use?
- Point of implementation via Wide Area Work Flow (Set Dates for implementation)
- UID requirement needs to get into regulations (formal documentation, such as the Contract Data Requirement List [CDRL] 1423 which creates a Contract Line Item Number [CLIN])
- DOD needs internal incentives to embrace UID – significant cultural change
- OEMs – DoD, tell us what you want
- Use existing programs (e.g. CH47 Helicopter) as preliminary examples for new programs (Joint Strike Fighter)
- Clearly explain “why” to DOD, it will be understood by industry partners in supply chain

Two smaller groups assembled. The first group met to discuss potential pilot programs (e.g., CH-47, JSF) and to build ROM and determine steps for UID implementation. The second group continued on the path of defining guidance for “Where” to start in implementing UID

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Pilot Proposal Discussion

(Patrick Curry, Carl Gardner, Mitch Kaarlela, Chris Sautter, LeAntha Sumpter, Steve Winship, King Yee)

- Review of one-page “steps to UID implementation” – some assumptions and not a linear process
- Box 1:
 - Items not on contract
 - Items under contract, undelivered
- JSF – complexity level 1C
- CH-47 – complexity level 3C
 - Has a CLS component in the G model
 - Being re-manufactured; will have a new DD-250 for the entire helo. Similar to new production contract
- JSF is prototype for 1C level; CH-47 is prototype for 3C. (lot’s more SLEP programs than new programs)
- What would be out-of-scope for JSF?
- This is the nameplate you will get today:
 - 3 UID elements, in 1D barcode.
 - Only applying to about 700 items (serialize CM tracking); smaller than the UID universe (didn’t have the \$5K threshold).
 - Can put the barcode sticker on the fighter/DD-250 for the fighter.
 - Marking spares will come later. That doesn’t start for a while.
- Will get most of what you want; need relief from \$5K rqmt.
- What is a \$5K part?
- Wynne desire:
 - UID for aircraft
 - UIDs for subassemblies: reparable or will be spared/repared separately. Not at the point where this can be answered; provisioning discussions not conducted just yet.
- Need to ensure that there are two classes of serialized parts: those that will be tracked (safety of flight, etc.), and those that are not.
 - Already got that; have business rules. (we can use for other programs).
 - We can start with that.
 - \$5K is for the end item.
- Financial gurus will have to maintain the list of items. Created under negotiation by PM, OEM.
- § May need some money for DD-250 barcode printing equipment.

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- Need relief from \$5K rule.
- What's the cost of adding 2D?
 - Open the barrel: lots of subs want to get well...
 - Would rather try 2D in acft 23 and beyond; more expensive to do now
- Why 1D vs. 2D? later on, will need more info. if you want more data later, then what? need the three elements in MRC. If the rqmts for data grow, may have to add add'l info to the dynamic portion of the label.
 - 2D getting cheaper;
 - can do for under about \$1M (cheap!)
- Gotten yelled at by two Generals; bringing them back from the mid-East for cleanup and overhaul. About 300 parts tracked on the acft; currently fat-fingered build record. When we bring them back, we (govt & Boeing) want to have soldiers start re-marking (with MRC for the first time; currently have HRC) some of them. Can then demo impact on AISs.
- Will establish UID at that point.
- Where do we send it? No central DoD registration repository.
- They become the rqmt / forcing fxn to push WAW to respond
- After part is marked, goes to Boeing under an established UID (with an "original" part #).

Proposal Components

- Three pieces:
 - JSF: a given
 - CH-47: demo
 - Rockwell:
 - o update WAW data fields and rules to capture data on voucher
 - o start to capture data
 - o can use as a model for orgs that currently don't mark
- Next step: cost impact of implementing this approach in 3 circumstances
- End game: want info into property mgmt catalog to be used to manage info
- Mandatory fields in DD-250; define as UID components
- May need other EID info on the form
- Chris: working with Boeing to ensure that DD-250 has the build record, with more than one UID
 - Original part marking, provision of UID will not be through DD-250. will need an AIS solution (may not be WAW) to get UID data to the property mgmt sys.
- Part 1:
 - 300 parts
 - MRC part marks – 6 possible sites

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- demo impact on internal AIS systems; need sol'n to capture UID data in the property mgmt sys
- Repository
 - Cross-organizational info, keyed to UID: where does it sit. Working in UK; need discussion. Who owns? Where is it? Is it distributed?
- Other possible pilots?
 - CSX, LPD, Electric Boat
 - DDG-51, Paladin, F-15
- Wide Area Work Flow
 - series of COTS products with GOTS rules
- Central repository issues:
 - tracks the asset: what, where, condition, etc.
 - UID central register
- Corporate system layer
- Collaborative info mgmt layer – break things into 1-to-many transactions.
- Transactor layer (who move things, change conditions, etc.)
- MOD did a study; (need a copy?)
- Security problem
- Risk management-based methodology
- JSF is building the collaborative layer for that program; need to expand to all programs. (re-use possible)
- Issues and Risks:
 - Army: need task-based maintenance management system, based on UID, that tracks *people, parts, tools, time, and training*.
 - Patrick: UID collaborative repository provides connectivity between different clouds of information and concern.
 - o where is the asset: lat/long, street address, etc...
 - o when last seen: DTG/time zone
 - o what is it: NSN?
 - o who has it: EID or DODAC... (when people get charged based on this, get's their attention!)
 - o what's the status: fit/unfit
 - o usage metric (miles run, or hours, or whatever)
 - o UID birthing info:
 - EID
 - serial number #
 - original part #

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Implementation Discussion – “Where” to Begin UID Implementation

What tools will be used to ensure UID?

- Software
- Hardware
- Architecture

New & Major Mods

- Tools for Implementing UID via Contracts
 - Contract Data Requirements List (CDRL 1423)
 - Statement of Work or Statement of Objective
 - Data Item Description (DID)
 - Specification

FAR Clause to reflect marking

- Contract Types
 - Developmental
 - Production
 - Repair / Rebuild
 - Contractor Logistics Support (CLS) - Exclude Lease Services
- Performance Contracting & applicable / enforcement of UID needs to be built into terms & conditions of contract
 - Under what conditions do the terms change, accountability for tracking, providing information

Implementing UID for Items Already in the Organization

- Guidance criteria for identifying Items
 - Scope of use
 - Volume of use
 - Criticality / serialized
 - Joint Service use
 - Who has money to do this?
 - Any piece parts within an LRU to be tracked
- Mark item when “touched” (item already removed from packaging or before it’s packed)
 - Maintenance
 - Repair
 - Inventory management (Classified & Unclassified)
 - Shelf life inspection
 - Special interest asset tracking / inspection

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- Command Reason
 - Treaty
 - Health / Safety
 - Receipt of material (Inter-service)
 - Test & evaluation
 - Transportation
- UID Implementation Principles for in-service items
 - First opportunity @ wholesale level
 - First opportunity (“touch” item)
- What does it mean to “do” UID?
 - Ensuring label on item exists with required data elements
 - Label has machine readable mark (always are requirement?)
 - AIT/AIS Technology is available with UID business rules to “create” the virtual UID (Speak to in policy)

Three Components of UID Implementation

- Part marking (Writing & Reading)
 - What drawings / tech documentation is effected?
 - Who needs to know/be involved? JEDMICs Drawings manager
- Database Implementation
 - AIT / AIS Implementation
 - Who needs to know/be involved? Software Architecture Manager
- Configuration Management
 - Who needs to know? Program Chief Engineer
 - Get UID updated in CM std 649 & 836

Summarize UID Implementation

- Looked at criteria for selecting items for UID implementation
- Addressed timing of marking
- Contractual regulations for UID in Acquisitions
- Marking of Assets in Inventory
- Identified issue with performance based contracts
- Identified benefits of UID
- Decided on strategy for launching policy by providing guidance templates.
- Identified inputs to policy guidance
- Need for Interim policy to allow for immediate marking. Can we go ahead or prepare before July (Will OSD offer a position statement)?

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Next Steps

- What do each of the three keys to implementation mean (part marking, database implementation, configuration management)? Who needs to be involved?
- Look at impact on current process and data standards
- What skill sets are needed for the next IWG meeting?

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- WAWF-RA demo** § Wide Area WorkFlow – Receipts and Acceptance
- § Contract writing systems migrating to SPS
 - § Contract payment systems migrating to PPS
 - § This would link the two
 - § (see their slides)
- § What info is collected by the system:
- § standard ANSI X-12 DDI formats
 - § may not collect enough for UID birthing purposes; may need to ask ANSI for a change, or could work to re-define data to be captured
 - § currently don't capture serial #
 - § currently, get serial numbers in a "open text" items; separate line-items would be possible; not currently supported

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Glossary

ADC	Automatic Data Capture
AI	Application Identifier – ISO 15418 standard
CLF	Commercial Logistics Support Facility
Code 39	Barcode technology – earlier; less dense than 128
Code 128	Barcode technology – denser than 39
DEBX	DoD Defense Electronic Business eXchange
DI	Data Identifier – ISO 15418 standard
DoDAAC	DoD
E-Card	
EID	Enterprise Identifier
EPC	Electronic Product Code
HR	Human Readable
IAQC ???	International Association of Quality Control standard - Dot Peen Marking?
InfoGlyph	Another symbology
MH10	ANSI Committee standard “Material Handling”
Micro PDF	Electronics standard: Portable Data File marking
MRC	Machine Readable Code
MRO	Maintenance Repair & Overhaul
NIIN	National Item Identification Number
NMWR	National Maintenance Work Requirement (depot-level aircraft repair manual)
OEM	Original Equipment Manufacturer
OPM	Army Opportunistic Parts Marking
PDF 417	Portable Data File 417
PLU	Retail Price LookUp code
RSS	UCC/EAN Reduced Space Symbology
RSS-CC	RSS Composite Component
SAE ???	US (dot peen standard)
SPI	Single Process Initiative
TCIF	TeleCommunications Industry Forum
TEI	Text Element Identifier – ATA SPEC 2000 (TS 21849) standard
UCN	Unique Component Number (remarked part)
USN	Universal Serial Number
WAWF-RA	DoD Wide Area WorkFlow – Receipt & Acceptance